# CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory


Job No.: CQCE/BBMP/MY/W.No.12/2019-20 Date : 08.11.2019

## TEST REPORT ON FINE AGGREGATES (SAND)
## IS 383-1970 (RA- 2002)

**Client** : **Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore.

**Agency** : **Sri. M. Yogesh (M/s Professional global infrastructure privited limited)**, Bangalore.

**Name of Work** : Restoration of road cut portion done by BWSSB in Chikkaasandra Village Government schoolsurrounding area in ward no.12, Shettyhalli sub Division. PKG-02 , BBMP, Bangalore.

Date of Testing : 08.11.2019

Material : Sand Total Wt. of Aggregates in gms **1000**

| Is Sieve Size in mm | Weight Retained (gm) | Retained Weight in % | Cumulative Retained Weight in % | Cumulative Weight Passing in % | Spec.Limits For Zone-II |
|---|---|---|---|---|---|
| 10 | 0 | 0 | 0 | 100 | 100 |
| 4.75 | 78 | 7.80 | 7.80 | 92.2 | 90-100 |
| 2.36 | 141 | 14.10 | 21.90 | 78.1 | 75-100 |
| 1.18 | 158 | 15.80 | 37.70 | 62.3 | 55-90 |
| 600 Micron | 231 | 23.10 | 60.80 | 39.2 | 35-59 |
| 300 Micron | 209 | 20.90 | 81.70 | 18.3 | 8-30 |
| 150 Micron | 136 | 13.60 | 95.30 | 4.7 | 0-10 |

**Note:**

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2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30days from the date of testing.

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory


Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail:civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550


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## TEST REPORT ON FINE AGGREGATES (SAND)
### IS 383-1970 (RA- 2002)

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**Agency** : **Sri. M. Yogesh (M/s Professional global infrastructure privited limited),** Bangalore.

**Name of Work** : Restoration of road cut portion done by BWSSB in Chikkasandra Village Government school surrounding area in ward no.12, Shettyhalli sub Division. PKG-02 , BBMP, Bangalore.

Date of Testing : 08.11.2019

Material : Stone Dust

Total Wt. of Aggregates in gms **1000**

| Is Sieve Size in mm | Weight Retained (gm) | Retained Weight in % | Cumulative Retained Weight in % | Cumulative Weight Passing in % | Spec.Limits For Zone-II |
|---|---|---|---|---|---|
| 10 | 0 | 0 | 0 | 100 | 100 |
| 4.75 | 69 | 6.90 | 6.90 | 93.1 | 90-100 |
| 2.36 | 148 | 14.80 | 21.70 | 78.3 | 75-100 |
| 1.18 | 165 | 16.50 | 38.20 | 61.8 | 55-90 |
| 600 Micron | 235 | 23.50 | 61.70 | 38.3 | 35-59 |
| 300 Micron | 228 | 22.80 | 84.50 | 15.5 | 8-30 |
| 150 Micron | 132 | 13.20 | 97.70 | 2.3 | 0-10 |

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For CIVIL QUALITY CONSULTANTS & ENGINEERS

AE/Ward 12

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Job No.: CQCE/BBMP/MY/W.No.12/2019-20 Date : 20.11.2019

## GRADATION FOR WMM
## MORTH TABLE-400-11

**Client** : **Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore.

**Agency** : **Sri. M. Yogesh (M/s Professional global infrastructure privited limited)**, Bangalore.

**Name of Work** : Restoration of road cut portion done by BWSSB in Chikkasandra Village Government school surrounding area in ward no.12, Shettyhalli sub Division. PKG-02 , BBMP, Bangalore.

**Date of Testing** : 20.11.2019

**Material Type** : Wet Mix Macadam

Oven Dry.Wt 10500

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Spec.Limits |
|---|---|---|---|---|---|
| 53 | 0 | 0 | 0 | 100 | 100 |
| 45 | 415 | 415 | 4.0 | 96.0 | 95-100 |
| 22.4 | 2536 | 2951 | 28.1 | 71.9 | 60-80 |
| 11.2 | 2696 | 5647 | 53.8 | 46.2 | 40-60 |
| 4.75 | 1558 | 7205 | 68.6 | 31.4 | 25-40 |
| 2.36 | 1174 | 8379 | 79.8 | 20.2 | 15-30 |
| 0.600 | 865 | 9244 | 88.0 | 12.0 | 8-22 |
| 0.075 | 469 | 9713 | 92.5 | 7.5 | 0-8 |

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For CIVIL QUALITY CONSULTANTS & ENGINEERS

AE/WS-12.

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Job No.: CQCE/BBMP/MY/W.No.12/2019-20 **Date:** 20.11.2019

## Aggregate Impact Value

IS: 2386 Part IV

| | |
|---|---|
| **Client** | **Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore. |
| **Agency** | **Sri. M. Yogesh (M/s Professional global infrastructure privited limited),** Bangalore. |
| **Name of the Work** | Restoration of road cut portion done by BWSSB in Chikkasandra Village Government school surrounding area in ward no.12, Shettyhalli sub Division. PKG-02 , BBMP, Bangalore. |
| **Type of Mix** | Wet Mix macadam |
| **Date of Testing** | 20.11.2019 |

| Sl No. | Details | Trial No. | | | Average |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | |
| 1 | Total weight of aggregate sample filling the cylindrical measure = $W_1$ g | 378 | 381 | 383 | 22.42 |
| 2 | Weight of agregate passing 2.36 mm sieve after the test = $W_2$ g | 84 | 85 | 87 | |
| 3 | Weight of aggregate retained 2.36 mm sieve after the test = $W_3$ g | 294 | 296 | 296 | |
| 4 | Aggregate Impact value = percent fines<br>100* ($W_2/W_1$)% | 22.22 | 22.31 | 22.72 | |

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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ISO 9001:2000 CERTIFIED


Job No.: CQCE/BBMP/MY/W.No.12/2019-20 20.07.2019

## DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

| | |
|---|---|
| **Client** | **Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore. |
| **Agency** | **Sri. M. Yogesh (M/s Professional global infrastructure privited limited),** Bangalore. |
| **Name of Work** | Restoration of road cut portion done by BWSSB in Chikkasandra Village Government school surrounding area in ward no.12, Shettyhalli sub Division. PKG-02 , BBMP, Bangalore. |
| **Technical Reference** | IS 2386(Part 1) 1963 (RA 2011) |
| **Type of Mix** | Wet Mix Macadam |
| **Sample ID** | WMM Layer |
| **Date of Testing** | 20.07.2019 |

Result : Flakiness Index = **11.96%**

Elongation Index = **13.58%**

**Result : Combined Flakiness & Elongation index** **25.54%**

**Comments:**

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

**Note:**

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ISO 9001:2000 CERTIFIED


Job No.: CQCE/BBMP/MY/W.No.12/2019-20 Date : 20.07.2019

## ATTERBERG LIMITS TEST FOR WMM
## MORTH TABLE-400-11

**Client** : **Executive Engineer,** Dasarahalli Zone, BBMP, Bangalore.
**Agency** : **Sri. M. Yogesh (M/s Professional global infrastructure privited limited)**, Bangalore.

**Name of Work** : Restoration of road cut portion done by BWSSB in Chikkasandra Village Government school surrounding area in ward no.12, Shettyhalli sub Division. PKG-02 , BBMP, Bangalore.

**Date of Testing** : 20.07.2019
**Material Type** : Wet Mix Macadam

**As per MORTH Table 400-13**

| Sl. No. | Particulars | Test Results | Standards as per Specifications |
|---|---|---|---|
| 1 | Liquid Limit | 23.00 | - |
| 2 | Plasticity Index, % | Non Plastic | 6.0% Maximum. |

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